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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
SCUDERI, PHILIP S	

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/036,849	ECKERT ET AL.	
	Examiner	Art Unit	
	Philip S. Scuderi	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,13,14,16-22 and 25-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,13,14,16-22 and 25-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to applicant's communication filed on 27 December 2005.

Claim Objections

The claim objections have been withdrawn because applicant's amendments have overcome the objections.

Claim Rejections - 35 USC § 112

The rejections under 35 USC § 112, second paragraph have been withdrawn because applicant's amendments have overcome the rejections. However, upon further consideration the following 35 USC § 112, second paragraph rejections apply.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11, 13, 14, 16-22, and 25-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 22, and 25-27 all recite the limitation "generating a response accordingly". The metes and bounds of this limitation cannot be determined from the language of the claims because it is unclear what the response is generated according to.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-11 and 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These claims are directed to a message broker comprising channel adapters that are not necessarily limited to being tangibly embodied. For example, the claimed channel adapters read on code embodied in a carrier wave.

Response to Arguments

Applicant's arguments, see pages 9-11, filed on 27 December 2005, with respect to the rejection(s) of claim(s) 1, 22, and 25-27 under 35 USC § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, new grounds of rejection are made below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 4, 6, 17, 18, 20-22, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over RFC 788, Simple Mail Transfer Protocol, November 1981, by Jonathan Postel (hereinafter "Postel") in view of RFC 1939, Post Office Protocol – Version 3, May 1996, by J. Myers (hereinafter "Myers").

Regarding claim 1 and 20, Postel teaches a message broker operable to:

receive a message from the first client system encoded in an Internet protocol and comprising content information and destination information (page 20, SOML or SAML command, user sends an email to a recipient; page 3, lines 1-3, hosts can be connected to the same transport service; pages 17-18, emails comprise data (content) and recipient (destination) information),

read the destination information from the message, and send a push request to place the message in a message channel corresponding to the destination information (page 20, mail is delivered to a recipient's mailbox (channel)).

Postel does not expressly teach how email recipients acquire the email (messages) in their mailboxes (channels). Therefore, it would have been obvious to one of ordinary skill in the art to look outside the teachings of Postel to find a method for enabling users to read their email.

In a similar art, Myers teaches a method for enabling users to read their email, comprising:

receiving a message request from a second client system encoded in an Internet protocol and comprising source information (page 4, a client login request comprising user (source) information);

reading the message request and identifying a message channel corresponding to the source information (page 4, "Once the POP3 server has determined through the use of any authentication command that the client should be given access to the appropriate maildrop, the POP3 server then acquires an exclusive-access lock on the maildrop");

sending a pull request to the message channel, and generating a response to the pull request (page 8, the RETR command).

It would have been obvious to one of ordinary skill in the art to use Myers' method for enabling users to read their email, thereby enabling Postel's recipients to acquire the email from their mailboxes, as discussed above.

Regarding claims 22, 25, 26, and 27, the claims read on a standard email system such as the system taught by Postel in view of Myers for the same reasons discussed in regards to claim 1 (the messages read on emails, the channels reads on mailboxes, etc.).

Regarding claim 3, Myers teaches generating a response comprising the content information when a message is placed in the channel (Myers, page 8, the RETR command).

Regarding claim 4, Myers teaches that the response is generated in an Internet protocol format (post office protocol).

Regarding claim 6, Postel teaches an address information store wherein channel information corresponding to at least one of the destination information and source information is stored (storing an email in a mailbox that comprises a destination address; page 20, email is delivered to a recipient's mailbox (channel); page 6, emails comprise a destination address).

Regarding claim 17, Myers teaches that the response comprises a message and that response comprises a message, and the receiver module is operable to generate an output comprising the content information (generating a response to the POP request comprising the email content; page 8, the RETR command).

Regarding claim 21, Postel teaches that at least one client system is connected via the Internet (page 8, example 4).

Claims 1, 2, 16, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,771,353 (hereinafter "Eggleston") in view of Postel, and further in view of Myers.

Eggleston teaches a means for retrieving email from a mailbox, wherein a client (201) pulls messages from a mailbox (channel) (231) on a server (220), receives a time out response (341) if no data exchange occurs within a predetermined time period, and retransmits a message request upon receiving the time out response (column 5, lines 17-31).

Eggleston is silent with respect to exactly how email ended up in the user's mailbox in the first place and the specifics of the protocol used to pull messages from the mailbox. Therefore, one of ordinary skill in the art would be motivated to look outside the teachings of Eggleston to find a means for sending email to a mailbox and pulling messages from the mailbox.

Postel and Myers teach such a method for sending and receiving email, as detailed in the rejection of claim 1. As such, it would have been obvious to one of ordinary skill in the art to send email to the mailbox disclosed by Eggleston using the email protocols detailed by Postel and Myers.

Claims 5, 13, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Postel in view of Myers, and further in view of U.S. Patent No. 6,029,164 (hereinafter "Birrell").

Postel in view of Myers teach a standard email system wherein clients access their mailboxes directly using the post office protocol. However, it was well known in the art to provide a web server so that clients can access their email from alternate locations, as evidenced by Birrell (figure 2). As such, it would have been obvious to one of ordinary skill in the art to provide a such a web server for the same reasons. It was generally well known in the art to provide firewalls for reasons such as providing network security and would have been obvious to do so in the instant case for the same reasons.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Postel in view of Myers.

Postel and Myers do not expressly teach that the email system comprises another mailbox (i.e., another message channel) that the email recipient uses to send a response email to the first client system, wherein the response email comprises the original email. The examiner takes official notice that responding to an email with a copy of an original email was well known in the art. As such, it would have been obvious to do so in the instant case so that the recipient could respond to the email (message) accordingly.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Postel in view of Myers.

Postel and Myers do not expressly teach that the messages are encoded in HTTP format or that they comprise HTTP POST or GET requests. However, the messages are merely email messages. The examiner takes official notice that it was well known in the art to encode email content using HTTP, to thereby make email content easier to read or more attractive. It was also generally well known in the art to send POST or GET URLs in the content of emails, thereby conveniently linking users to information or websites relevant to email content.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Postel in view of Myers, and further in view of U.S. Patent No. 6,199,102 (hereinafter "Cobb").

Regarding claim 18, Myers does not teach that the second client system comprises a firewall and that the message is allowed to pass through the firewall. However, firewalls were generally well known in the art. In a similar art, Cobb teaches a message filter that acts as a firewall between a

recipient and a POP server (figure 2; column 6, lines 12-35). It would have been obvious to one of ordinary skill in the art to provide such a firewall, thereby addressing the need to filter unsolicited email (Cobb, column 2, lines 21-23).

Claims 1, 3-8, 13, 14, 17-22, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2003/0009571 (hereinafter "Bavadekar") in view of A Practitioners Approach to Data Federation, by Frank Leymann (hereinafter "Leymann").

Bavadekar teaches a message broker (messaging server 100A) for transmitting a messages between first and second client systems (figure 1; 0006). Bavadekar teaches that the message broker is "a modification to ... traditional client/server architecture[s]" (0006) such as "IBM's MQSeries and iPlanet Message Queue" (0005) and that "[t]he major difference is the presence of a messaging server" (0006) between the end systems. However, Bavadekar is silent with respect to particular operational aspects of messaging server 100A (i.e., the message broker). Accordingly, one of ordinary skill in the art would be motivated to look outside the teachings of Bavadekar in order to enable the system to function properly.

Leymann teaches prior art message queuing systems that one of ordinary skill in the art would be motivated to use to fill in the gaps in Bavadekar's system. Since, Bavadekar states that the end systems "are no longer responsible for handling communications". Therefore, one would be motivated to place remote queues (i.e., channels) as taught by Leymann (figure 2; page 3) within the message broker itself. Since Leymann teaches that the message queuing systems use "explicit destination (i.e. a queue)" (page 2), pushes/pulls to/from the queues on message server 100A (i.e., the message broker) would clearly have to identify the source or destination queue.

It is noted that in pages 11-12 of the latest response dated 27 December 2005 applicant discusses Leyman's message queuing systems. Applicant states that "Leyman[n] generally discloses message queuing systems but does not disclose a single broker facilitating communication between two entities." The examiner agrees with this applicant's assessment in the context of Leymann's teachings alone. However, in combination with the message broker taught by Bavadekar, as set forth above, this would clearly not be the case. In fact, Bavadekar's messaging server appears to be just such a single broker.

Bavadekar does not expressly disclose the API that end systems use to access the message broker. It was generally well known in the art to provide firewalls for reasons such as providing network security and would have been obvious to do so in the instant case for the same reasons. In a separate embodiment than the embodiment discussed above, Bavadekar discloses a message broker that uses a servlet API in order to enable connections to traverse a firewall (figure 2).. As such, it would have been obvious to one of ordinary skill in the art to implement the message broker using such a servlet interface for the same reasons.

Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bavadekar in view of Leymann, and further in view of Eggleston.

Bavadekar in view of Leymann does not teach generating a time out response if no message is placed in the channel within a predetermined time period or retransmitting a message request upon receiving such a response. Nonetheless, it was well known in the art to generate a time out response if no data exchange occurs on a connection within a predetermined time period and to retransmit a message request upon receiving such a response, as evidenced by Eggleston.

Eggleston teaches a client (201) that pulls messages from a channel (231) on a server (220), receives a time out response (341) if no data exchange occurs within a predetermined time period, and retransmits a message request upon receiving the time out response (column 5, lines 17-31).

It would have been obvious to one of ordinary skill in the art to use Eggleston's time out scheme because it is an inefficient use of resources to continue querying a host when a client is no longer receiving data from a remote location (Eggleston, column 5, lines 6-8) as would be required in the system discussed above. For example, end systems pull messages from the remote channels located on the message broker.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bavadekar in view of Leymann, and further in view of U.S. Patent No. 6,023,722 (hereinafter "Colyer").

Bavadekar does not expressly teach the utilities that the messaging server is used for. Colyer teaches an environment that uses IBM MQSeries to provide load balancing between a client browser and back-end web servers, wherein the messages processed in by the MQSeries product are HTTP POST/GET requests (figure 1; column 5, line 7 – column 7, line 1). It would have been obvious to one of ordinary skill in the art to use Bavadekar's messaging server (i.e., message broker) in such an environment for the same reasons that Colyer uses the MQSeries product, such as to provide a system capable of serving a large number of requests (Colyer, column 4, lines 47-58).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip S. Scuderi whose telephone number is (571) 272-5865. The examiner can normally be reached on Monday-Friday 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PSS

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